



featherriver.org

UPPER FEATHER RIVER IRWM PROJECT INFORMATION FORM

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PROJECT INFORMATION FORM

Please submit by 5:00 p.m. on August 3, 2015, to UFR.contact@gmail.com

Please provide information in the tables below:

I. PROJECT PROPONENT INFORMATION

Agency / Organization	Gold Mountain Community Service District (GM CSD)
Name of Primary Contact	Ivan Gossage, General Manager
Name of Secondary Contact	Rich McLaughlin, Board President
Mailing Address	150 Pacific Street, Portola, CA 96122
E-mail	gossageivan@gmail.com rich.mclaughlinGMCSO@gmail.com
Phone	(530) 832-5945
Other Cooperating Agencies / Organizations / Stakeholders	None
Is your agency/organization committed to the project through completion? If not, please explain	Yes. Project is included in our long-term capital plan.

II. GENERAL PROJECT INFORMATION

Project Title	MS-7: High Elevation Water Tank & Well
Project Category	<input type="checkbox"/> Agricultural Land Stewardship <input type="checkbox"/> Floodplains/Meadows/Waterbodies <input checked="" type="checkbox"/> Municipal Services Water Supply/Water Quality <input type="checkbox"/> Tribal Advisory Committee <input type="checkbox"/> Uplands/Forest
Project Description (Briefly describe the project, in 300 words or less)	<p>Phase 1: Construction of a new water storage tank at an elevation of 5670' to ensure a positive supply of domestic water distributed via gravity flow to all locations in the service area. The current domestic water system relies on two 125,000-gallon tanks at an elevation of 5170', which is insufficient to provide water pressure to roughly 32% of properties; currently served by multiple booster pump stations only.</p> <p>Phase 2: Drilling a high altitude well to service the new tank. Lower altitude existing wells and the limited distribution system are insufficient to meet long-term community requirements. Drought conditions, compounded by the hard rock geology, limit the groundwater supply even in wet years. Existing wells were originally rated at capacities over two</p>

	<p>times their current output. The new well combined with the new tank and associated distribution lines will help provide a sufficient and reliable water system to meet all community requirements.</p> <p>Domestic Water Reliability - This project will increase the reliability and efficiency of the CSD's domestic water system. The current system, installed by the original bankrupt developer, is insufficient to meet community demands, and due to the need to pump water to a large segment of the community, the system is complex, costly to maintain, and at times unreliable during peak use.</p> <p>Emergency Water Supply - The project will provide for a viable water supply for structural firefighting and wild land fire suppression through much of the community's hydrant systems that currently rely on booster pump pressure.</p> <p>Water conservation – The current pressurized system is prone to increase severity of water loss due to leaks. Booster pumps do not efficiently provide consistent pressure to the system and cause parts of the system to be unnecessarily prone to under/over-pressurization and increase the occurrence of leaks and pressure losses.</p>
Project Location Description (e.g., along the south bank of stream/river between river miles or miles from Towns/intersection and/or address):	The new storage tank will be located on CSD property, GM lot P at the highest point on the Eagle's nest loop located in the SE corner of the CSD service area between lots 354 and 355. The location of the new well has not yet been identified but will depend on hydrologic studies of likely locations in proximity to the new storage tank.
Latitude:	39° 45' 20.81" N
Longitude:	120° 30' 14.89" W

III. APPLICABLE IRWM PLAN OBJECTIVES ADDRESSED

For each of the objectives addressed by the project, provide a one to two sentence description of how the project contributes to attaining the objective and how the project outcomes will be quantified. If the project does not address *any* of the IRWM plan objectives, provide a one to two sentence description of how the project relates to a challenge or opportunity of the Region.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Restore natural hydrologic functions.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The new well, in a different fractured granite aquifer, will reduce over pumping of existing wells allowing for more natural recharge rates for those deep wells.	The new well is anticipated to provide an additional 200 acre-feet or more annually to CSD supply.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Reduce potential for catastrophic wildland fires in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	A secondary objective of the high altitude storage tank/well is to provide greatly increased availability of emergency water supplies available to firefighters.	Thousands of acres of wild land will benefit by the reduced wildfire potential.
Build communication and collaboration among water resources stakeholders in the Region.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	These improvements will present significant collaboration opportunities between the CSD, the HOA, and commercial entities in the district	Many community members, businessmen and women and resource managers will work together.
Work with DWR to develop strategies and actions for the management, operation, and control of SWP facilities in the Upper Feather River Watershed in order to increase water supply, recreational, and environmental benefits to the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Encourage municipal service providers to participate in regional water management actions that improve water supply and water quality.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Gold Mountain Community Service District is a municipal service provider. This project represents a very pro-active action to contribute in a positive way to regional water supply management and long-term water quality.	Many State and local water management officials interact together.
Continue to actively engage in FERC relicensing of hydroelectric facilities in the Region.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Address economic challenges of municipal service providers to serve customers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project solves a major challenge for the CSD by providing a long-term solution for domestic water supply management.	Small CSD's must overcome daunting economic challenges.
Protect, restore, and enhance the quality of surface and groundwater resources for all beneficial uses, consistent with the RWQC Basin Plan.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project will significantly relieve pressure on two existing wells to protect the fragile fractured granite aquifers allowing more natural recharging.	40,000 gallons per day or more of water pumping from existing wells can be eliminated.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Address water resources and wastewater needs of DACs and Native Americans.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.	All people benefit directly when water resources are protected.
Coordinate management of recharge areas and protect groundwater resources.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Project will reduce the amount of pumping required from existing wells and will allow for a more balanced approach to aquifer management, groundwater withdrawal and aquifer recharge.	An approximate 33% reduction of groundwater pumping from existing sources can be achieved if the new high altitude well is brought on-line.
Improve coordination of land use and water resources planning.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	A major commercial golf course operates within the CSD region with their own private wells. Managing ground water resources across the district is required. Coordination and planning by all concerned entities including the golf course and the HOA will be enhanced.	Golf course water well impacts on CSD supply and the shared aquifer will be less if the project is implemented.
Maximize agricultural, environmental and municipal water use efficiency.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Developing a gravity flow domestic water system for the entire community will materially improve district efficiency/reliability and reduce operating costs.	Consistent water pressure in the system will reduce leaks and other system failures. Pumping costs will be reduced.
Effectively address climate change adaptation and/or mitigation in water resources management.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	An important element of this project is to increase the CSD's tolerance for continued drought by increasing storage and delivery capacity to ensure adequate supplies of domestic water to district users.	Declining water levels in community wells can be better managed with the project's addition of a well in a different aquifer with a gravity fed delivery system.
Improve efficiency and reliability of water supply and other water-related infrastructure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The major objective of this project is improved reliability and efficiency of the district's domestic water supply.	360,000 gallons of new water storage will ensure peak water demands are met.

Upper Feather River IRWM Objectives:	Will the project address the objective?	Brief explanation of project linkage to selected Objective	Quantification (e.g. acres of streams/wetlands restored or enhanced)
Enhance public awareness and understanding of water management issues and needs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The CSD has undertaken a major outreach effort to inform our owners of the IRWM project and goals, and the importance of long-term capital projects to ensure workable and effective CSD services.	Hundreds of community members will be aware of the projects benefits.
Address economic challenges of agricultural producers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A		
Work with counties/communities/groups to make sure staff capacity exists for actual administration and implementation of grant funding.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	The GM CSD is fully prepared to work with the IRWM and the county to administer any resultant grant and see this project through to completion. We are prepared to resource accordingly.	Numerous project stakeholders will be able participate in developing and implementing this important IRWM project.

If no objectives are addressed, describe how the project relates to a challenge or opportunity for the Region:

The GM CSD sees wide benefits to this project across the spectrum of Municipal Service Group IRWM objectives. The foremost benefit of this project is efficient long-term delivery of domestic water to our residential and commercial customer in the growing region of Eastern Plumas County. Other important benefits include improved management of groundwater resources, reliable water supply during peak demand, installation of sustainable infrastructure, implementation of green systems, and operational and managerial preparation for climate change impacts.

IV. PROJECT IMPACTS AND BENEFITS

Please provide a summary of the expected project benefits and impacts in the table below or check N/A if not applicable; **do not leave a blank cell**. Note that DWR encourages multi-benefit projects.

If applicable, describe benefits or impacts of the project with respect to:		
a. Native American Tribal Communities	<input checked="" type="checkbox"/> N/A	
b. Disadvantaged Communities¹	<input type="checkbox"/> N/A	The GM CSD falls entirely within a greater Eastern Plumas County disadvantaged community.
c. Environmental Justice²	<input type="checkbox"/> N/A	The GM CSD ensures fair and equal services regardless of race, culture, income, or any other cultural factors.
d. Drought Preparedness	<input type="checkbox"/> N/A	Project will reduce the demand on two existing community wells which are experiencing slow degradation as the drought continues. This project will ensure delivery capacity and allow a more efficient recharge to our fractured granite aquifer.
e. Assist the region in adapting to effects of climate change³	<input type="checkbox"/> N/A	CSD is aggressively responding to the California drought emergency through outreach programs, limitations on outdoor irrigation, reducing hazardous fuel loads, and other measures. As of December 31, 2015 we have reduced water usage by 27% since 2013. Our owners are very aware of the need to adapt to changing climate patterns.
f. Generation or reduction of greenhouse gas emissions (e.g. green technology)	<input type="checkbox"/> N/A	If the CSD can reduce the amount of fossil fuel generated electricity it uses for pumping, there will be a net positive reduction in greenhouse gas emissions. The project will eliminate the reliance of booster pump stations to pressurize water service zones. Systems pressure will be maintained by gravity, thus reducing electrical energy and greenhouse gas emissions.
g. Other expected impacts or benefits that are not already mentioned elsewhere	<input type="checkbox"/> N/A	While the primary objectives of this project is are to improve the ability of the CSD to reliably and efficiently deliver domestic water, secondary benefits include increased emergency water capacity and reliability as well as improved overall water conservation.

¹ A Disadvantaged Community is defined as a community with an annual median household (MHI) income that is less than 80 percent of the Statewide annual MHI. DWR's DAC mapping is available on the UFR website (<http://featherriver.org/maps/>).

² Environmental Justice is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies. An example of environmental justice benefit would be to improve conditions (e.g. water supply, flooding, sanitation) in an area of racial minorities.

³ Climate change effects are likely to include increased flooding, extended drought, and associated secondary effects such as increased wildfire risk, erosion, and sedimentation.

DWR encourages multiple benefit projects which address one or more of the following elements (PRC §75026(a)). Indicate which elements are addressed by your project.

a. Water supply reliability, water conservation, water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	g. Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
b. Stormwater capture, storage, clean-up, treatment, management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	h. Watershed protection and management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
c. Removal of invasive non-native species, creation/enhancement of wetlands, acquisition/protection/restoration of open space and watershed lands	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	i. Contaminant and salt removal through reclamation/desalting, other treatment technologies and conveyance of recycled water for distribution to users	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
d. Non-point source pollution reduction, management and monitoring	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	j. Planning and implementation of multipurpose flood management programs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
e. Groundwater recharge and management projects	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	k. Ecosystem and fisheries restoration and protection	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
f. Water banking, exchange, reclamation, and improvement of water quality	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A		

V. RESOURCE MANAGEMENT STRATEGIES

For each resource management strategy (RMS) employed by the project, provide a one to two sentence description in the table below of how the project incorporates the strategy. A description of the RMS can be found in Volume 2 of the 2013 California Water Plan (<http://featherriver.org/2013-california-water-plan-update/>).

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
Reduce Water Demand		
Agricultural Water Use Efficiency	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban water use efficiency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The existing district distribution system is terribly inefficient due to the dependence on pumping stations to supply roughly 32% of the community including emergency water (hydrant) supplies. This project will all but eliminate the need for pumps except to fill and transfer water between storage tanks
Improve Flood Management		
Flood management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Improve Operational Efficiency and Transfers		
Conveyance – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Project will dramatically improve efficiency of domestic water conveyance across large segments of our service area.
System reoperation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Project will include re-engineering of the existing distribution system to improve reliability and efficiency of domestic water delivery
Water transfers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Increase Water Supply		
Conjunctive management	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources. Coordinate use of wells across the system will allow water managers to better manage limited ground water reserves.
Precipitation Enhancement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Municipal recycled water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Surface storage – regional/local	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Increase storage capacity will better ensure the district's ability to deliver domestic water to all service area users.
Improve Water Quality		
Drinking water treatment and distribution	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	This project is a critical element of the district's long-term capital plan to deliver domestic, potable water to all customers.
Groundwater remediation/aquifer remediation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources. Coordinate use of wells across the

Resource Management Strategy	Will the Project incorporate RMS?	Description of how RMS to be employed, if applicable
		system will allow water managers to better manage limited ground water reserves.
Matching water quality to water use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pollution prevention	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Salt and salinity management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Urban storm water runoff management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Practice Resource Stewardship		
Agricultural land stewardship	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Ecosystem restoration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Forest management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Land use planning and management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Recharge area protection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Developing new water supplies in an untapped fractured granite aquifer will reduce dependence on existing over pumped resources allowing the existing aquifers to efficiently recharge.
Sediment management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Watershed management	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
People and Water		
Economic incentives	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Outreach and engagement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CSD is aggressively responding to the California drought emergency through outreach programs to engage our customers in water discussions. The need for this project has been widely discussed among owners in the small district
Water and culture	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water-dependent recreation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wastewater/NPDES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Other RMS addressed and explanation:

Education: the project offers an opportunity to inform the community water resource management.
 Planning for Sustainability: the project helps to build sustainable systems and project elements.
 Operational Strategies: the project improves operational efficiency and enhances operational performance strategies.

VI. PROJECT COST AND FINANCING

Please provide any estimates of project cost, sources of funding, and operation and maintenance costs, as well as the source of the project cost in the table below.

PROJECT BUDGET					
Project serves a need of a DAC?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Funding Match Waiver request?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Category		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
a.	Direct Project Administration	\$0	\$20,000	\$0	\$20,000
b.	Land Purchase/Easement	\$0	\$0	\$0	\$0
c.	Planning/Design/Engineering / Environmental	\$115,150	\$76,850	\$0	\$192,000
d.	Construction/Implementation	\$1,430,000	\$0	\$0	\$1,430,000
e.	Environmental Compliance/ Mitigation/Enhancement	\$0	\$10,000	\$0	\$10,000
f.	Construction Administration	\$199,000	\$0	\$0	\$199,000
g.	Other Costs	\$0	\$0	\$0	\$0
h.	Construction/Implementation Contingency	\$286,000	\$0	\$0	\$286,000
i.	Grand Total (Sum rows (a) through (h) for each column)	\$2,030,150	\$106,850	\$0	\$2,137,000
j.	Can the Project be phased? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide cost breakdown by phases				
		Project Cost	O&M Cost	Description of Phase	
	Phase 1	\$1,733,107	\$5,000	High Altitude Storage Rank	
	Phase 2	\$403,893	\$12,000	High Altitude Well	
	Phase 3				
	Phase 4				
k.	Explain how operation and maintenance costs will be financed for the 20-year planning period for project implementation (not grant funded).		Increased annual cost of O&M will be included in water user fees.		
l.	Has a Cost/Benefit analysis been completed?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
m.	Describe what impact there may be if the project is not funded (300 words or less)		Without outside funding this project will not be implemented in the conceivable future. The reliability of water supply delivery to approximately 1/3 of the CSD will remain a primary concern for CSD operations. Current inefficient multiple lift pumping systems will remain in operation.		

*List all sources of funding: *We could contribute matching funds from our reserves. If that is insufficient, the district currently has no debt, but incurring long-term debt may be a necessary consideration.*

Note: See Project Development Manual, Exhibit B, for assistance in completing this table (<http://featherriver.org/documents/>).

VIII. PROJECT STATUS AND SCHEDULE

Please provide a status of the project, level of completion as well as a description of the activities planned for each project stage. If unknown, enter **TBD**.

Project Stage	Check the Current Project Stage	Completed?	Description of Activities in Each Project Stage	Planned/ Actual Start Date (mm/yr)	Planned/ Actual Completion Date (mm/yr)
a. Assessment and Evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Tank site review complete. Pipe route analyzed. Need to select well location.	4/16	9/16
b. Final Design	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Prepare design and construction drawings, specifications and bidding documents.	12/15	6/15
c. Environmental Documentation (CEQA / NEPA)	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Submit request to Plumas County to renew Project Exemption.	12/15	3/16
d. Permitting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Obtain well drilling permits; County Health plan review.	12/15	4/16
e. Construction Contracting	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Project Bidding and Award.	6/16	8/16
f. Construction Implementation	<input type="checkbox"/>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Construction and Construction Administration.	9/16	9/17
Provide explanation if more than one project stage is checked as current status			Final location of well to be determined and test hole drilling and pump tested. A preliminary schematic design/plan for the project has been developed. All other design work is on hold pending project funding.		

IX. PROJECT TECHNICAL FEASIBILITY

Please provide any related documents (date, title, author, and page numbers) that describe and confirm the technical feasibility of the project. See www.featherriver.org/catalog/index.php for documents gathered on the UFR Region.

<p>a. List the adopted planning documents the proposed project is consistent with or supported by (e.g. General Plans, UWMPs, GWMPs, Water Master Plan, Habitat Conservation Plans, TMDLs, Basin Plans, etc.).</p>	<p>Water Quality Control Plan for the Sacramento and San Joaquin River Basins</p>
<p>b. List technical reports and studies supporting the feasibility of this project.</p>	<p>Hydrogeological Evaluation and Groundwater Development Recommendations for GM CSD 2006 Groundwater Monitoring Network Recommendations November 2006 Master Plan Report for GM CSD 2007</p>
<p>c. Concisely describe the scientific basis (e.g. how much research has been conducted) of the proposed project in 300 words or less.</p>	<p>CSD has completed a review of all known documents and regulations. We are well versed in both water storage and well development through previous projects. We've completed initial engineering design review including site location and evaluation for the new tank. We have also completed initial hydrologic studies of possible well sites including one test well but have not yet identified the best site.</p>
<p>d. Does the project implement green technology (e.g. alternate forms of energy, recycled materials, LID techniques, etc.).</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If yes, please describe. Modern technologies, including new energy efficient equipment and processes, that will enhance project sustainability are proposed. Gravity fed delivery reduces the need for booster pumping. The project will utilize natural green processes to manage stormwater runoff at both the tank and well sites.</p>
<p>e. Are you an Urban Water Supplier¹?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>f. Are you an Agricultural Water Supplier²?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>g. Is the project related to groundwater?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A If yes, please indicate which groundwater basin. Groundwater basin undefined; however project is located in Hydro Unit Number 518.3 of the Basin Plan.</p>

¹ Urban Water Supplier is defined as a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.

² Agricultural Water Supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.

Climate Change – Project Assessment Checklist

This climate change project assessment tool allows project applicants and the planning team to assess project consistency with Proposition 84 plan standards and RWMG plan assessment standards. The tool is a written checklist that asks GHG emissions and adaptation/resiliency questions.

Name of project: MS-7: Stage 1, High Elevation Water Tank

Project applicant: Gold Mountain Community Service District

GHG Emissions Assessment

Project Construction Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- The project requires materials to be transported to the project site.
- The project requires workers to commute to the project site.
- The project is expected to generate GHG emissions for other reasons.
- The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Operating Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires energy to operate.
- The project will generate electricity.
- The project will proactively manage forests to reduce wildfire risk.
- The project will affect wetland acreage.
- The project will include new trees.
- Project operations are expected to generate or reduce GHG emissions for other reasons.

Adaptation & Resiliency Assessment

Water Supply

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water supply vulnerability issues:

- Not applicable
- Reduced snowmelt
- Unmet local water needs (drought)
- Increased invasive species

New water tanks will substantially increase the district's ability to deal with drought conditions through increasing the district's annual water storage capacity. Storing water in periods of abundant supply and thereby reducing pressure on the district's wells during periods of drought provides for better resiliency for the overall watershed.

The high altitude tank will also significantly reduce energy use as it will allow the district to convert a large percentage of our customers currently on a pressurized domestic water system to be gravity fed. The tank project is in conjunction with a high elevation well to service the new tank.

Water Demand

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water demand vulnerability issues:

- Not applicable
- Increasing seasonal water use variability
- Unmet in-stream flow requirements
- Climate-sensitive crops
- Groundwater drought resiliency
- Water curtailment effectiveness

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new tank will reduce pressure on the current system as well as on our two critical domestic water wells. Increased storage capacity during the wet months will further reduce pressure on our wells in the drier months, allowing for the aquifers to more efficiently recharge during the dry months.

Water Quality

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water quality vulnerability issues:

- Not applicable
- Increasing catastrophic wildfires
- Eutrophication (excessive nutrient pollution in a waterbody, often followed by algae blooms and other related water quality issues)
- Seasonal low flows and limited abilities for waterbodies to assimilate pollution
- Water treatment facility operations
- Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

The district currently has limited water storage capacity, both in tanks and available surface sources to fight either house or wildland fires. The high altitude tank both increases capacity but just as importantly provides a gravity pressurized source of emergency water in the event the district suffers from lack of power likely to be expected during an emergency.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows.

Flooding

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority flooding vulnerability issues:

- Not applicable
- Aging critical flood protection
- Wildfires
- Critical infrastructure in a floodplain
- Insufficient flood control facilities

Ecosystem and Habitat

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority ecosystem and habitat vulnerability issues:

- Not applicable
- Climate-sensitive fauna or flora
- Recreation and economic activity
- Quantified environmental flow requirements
- Erosion and sedimentation
- Endangered or threatened species
- Fragmented habitat

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production and storage capacity results in relatively full time production from our wells and frequent turnover of water storage. The increased capacity of this system will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

Hydropower

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority hydropower vulnerability issues:

- Not applicable
- Reduced hydropower output

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

MS-7: Stage 1-High Elevation Tank

GHG Emissions Analysis

Project Construction Emissions

The project requires non-road or off-road engines, equipment, or vehicles to complete. If yes:

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total MTCO ₂ e
Tractors/Loaders/Bac khoes	1	14	4
Excavators	1	14	6
Surfacing Equipment	1	14	10
Cranes	1	5	4
			0
			0
			0
			0
			0
			0
Total Emissions			24

The project requires materials to be transported to the project site. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO ₂ e
5	120	1

The project requires workers to commute to the project site. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total MTCO ₂ e
3	45	120	6

The project is expected to generate GHG emissions for other reasons. If yes, explain:

The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

MS-7: Stage 1-High Elevation Tank

Project Operating Emissions

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
	kWh (Electricity)	0
	Therm (Natural Gas)	0

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will proactively manage forests to reduce wildfire risk. If yes:

Acres Protected from Wildfire	Total MTCO ₂ e
3	-19

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
1	-186

*A negative value indicates GHG reductions

Project operations are expected to generate or reduce GHG emissions for other reasons. If yes, explain:

GHG Emissions Summary

Construction and development will generate approximately:	31 MTCO ₂ e
In a given year, operation of the project will result in:	-205 MTCO ₂ e

Climate Change – Project Assessment Checklist

This climate change project assessment tool allows project applicants and the planning team to assess project consistency with Proposition 84 plan standards and RWMG plan assessment standards. The tool is a written checklist that asks GHG emissions and adaptation/resiliency questions.

Name of project: MS-7: Stage 2, High Elevation Well

Project applicant: Gold Mountain Community Service District

GHG Emissions Assessment

Project Construction Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires nonroad or off-road engines, equipment, or vehicles to complete.
- The project requires materials to be transported to the project site.
- The project requires workers to commute to the project site.
- The project is expected to generate GHG emissions for other reasons.
- The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Operating Emissions

(If you check any of the boxes, please see the attached worksheet)

- The project requires energy to operate.
- The project will generate electricity.
- The project will proactively manage forests to reduce wildfire risk.
- The project will affect wetland acreage.
- The project will include new trees.
- Project operations are expected to generate or reduce GHG emissions for other reasons.

Adaptation & Resiliency Assessment

Water Supply

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water supply vulnerability issues:

- Not applicable
- Reduced snowmelt
- Unmet local water needs (drought)
- Increased invasive species

The new well will substantially increase the district's ability to deal with drought conditions by reducing pressure on the district's two existing wells. Additionally, this well is planned as stage 2 of the planned high elevation water project. The well will provide an immediate and local source of domestic water to feed the new high altitude water storage tanks. Storing water in periods of abundant supply and thereby reducing pressure on the district's wells during periods of drought provides for better resiliency for the overall watershed.

The high altitude well/tank will also significantly reduce energy use as it will allow the district to convert a large percentage of our customers currently on a pressurized domestic water system to be gravity fed. Even without the tank, the district has a long term plan for a high altitude well to tap into and as yet untapped aquifer zone.

Water Demand

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water demand vulnerability issues:

- Not applicable
- Increasing seasonal water use variability
- Unmet in-stream flow requirements
- Climate-sensitive crops
- Groundwater drought resiliency
- Water curtailment effectiveness

The district serves a large number of seasonal residents and water use goes up accordingly in the May to September time frame. The new well/tank will reduce pressure on the current system as well as on our two critical domestic water wells. Increased storage capacity during the wet months will further reduce pressure on our wells in the drier months, allowing for the aquifers to more efficiently recharge during the dry months.

Water Quality

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority water quality vulnerability issues:

- Not applicable
- Increasing catastrophic wildfires
- Eutrophication (excessive nutrient pollution in a waterbody, often followed by algae blooms and other related water quality issues)
- Seasonal low flows and limited abilities for waterbodies to assimilate pollution
- Water treatment facility operations
- Unmet beneficial uses (municipal and domestic water supply, water contact recreation, cold freshwater habitat, spawning habitat, wildlife habitat, etc.)

The district currently has limited water storage capacity, both in tanks and available surface sources to fight either house or wildland fires. The high altitude well/tank increases capacity but just as importantly provides a gravity pressurized source of emergency water in the event the district suffers from lack of power likely to be expected during an emergency.

The Gold Mountain community is a slow growth community, but nevertheless the district must plan for long term water production and delivery to meet a number of beneficial uses including domestic water supplies, recreational contact uses (pools and engineered aquatic habitats) which will see increased demand as the community grows.

Flooding

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority flooding vulnerability issues:

- Not applicable
- Aging critical flood protection
- Wildfires
- Critical infrastructure in a floodplain
- Insufficient flood control facilities

Ecosystem and Habitat

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority ecosystem and habitat vulnerability issues:

- Not applicable
- Climate-sensitive fauna or flora
- Recreation and economic activity
- Quantified environmental flow requirements
- Erosion and sedimentation
- Endangered or threatened species
- Fragmented habitat

The seasonal nature of the Gold Mountain community results in significantly increased pressure on the watershed during the summer months. Current limited water production capacity results in relatively full time well production during the summer months. The increased capacity of this system will greatly reduce pressure on the district's systems and in turn will significantly reduce pressure on our fragile fractured granite aquifers during the dry months.

Hydropower

Describe how the project makes the watershed (more/less) resilient to one or more of the following high priority hydropower vulnerability issues:

- Not applicable
- Reduced hydropower output

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

MS-7: Stage 2-High Elevation Well

GHG Emissions Analysis

Project Construction Emissions

Y The project requires non-road or off-road engines, equipment, or vehicles to complete. If yes:

Type of Equipment	Maximum Number Per Day	Total 8-Hour Days in Operation	Total MTCO ₂ e
Bore/Drill Rigs	1	7	7
Excavators	1	7	3
			0
			0
			0
			0
			0
			0
			0
			0
			0
Total Emissions			10

Y The project requires materials to be transported to the project site. If yes:

Total Number of Round Trips	Average Trip Distance (Miles)	Total MTCO ₂ e
5	120	1

Y The project requires workers to commute to the project site. If yes:

Average Number of Workers	Total Number of Workdays	Average Round Trip Distance Traveled (Miles)	Total MTCO ₂ e
2	10	120	1

N The project is expected to generate GHG emissions for other reasons. If yes, explain:

N The project does not have a construction phase and/or is not expected to generate GHG emissions during the construction phase.

Upper Feather River IRWMP
Project Assessment - GHG Emissions Analysis

MS-7: Stage 2-High Elevation Well

Project Operating Emissions

The project requires energy to operate. If yes:

Annual Energy Needed	Unit	Total MTCO ₂ e
39,420	kWh (Electricity)	8
	Therm (Natural Gas)	0

The project will generate electricity. If yes:

Annual kWh Generated	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will proactively manage forests to reduce wildfire risk. If yes:

Acres Protected from Wildfire	Total MTCO ₂ e
1	-3

*A negative value indicates GHG reductions

The project will affect wetland acreage. If yes:

Acres of Protected Wetlands	Total MTCO ₂ e
	0

*A negative value indicates GHG reductions

The project will include new trees. If yes:

Acres of Trees Planted	Total MTCO ₂ e
0	0

*A negative value indicates GHG reductions

Project operations are expected to generate or reduce GHG emissions for other reasons. If yes, explain:

GHG Emissions Summary

Construction and development will generate approximately:	12 MTCO ₂ e
In a given year, operation of the project will result in:	5 MTCO ₂ e